

ATTATTTAT TTTTATTGTT TTATTTCTTT TTTTCTTTA AATTGTATAT TTATAAATAT 60  
TTAAAAAGT TAGAAATGA CAAATAGTAA TTACAAATCA AATAATAAAA CATATAATGA 120  
AATAATAAT GAAGAAATAA CTACCATATT TAATAGAACA AATATGAATC CGATAAAAAA 180  
ATGTCATATG AGAGAAAAAA TAAATAAGTA CTTTTTTTTG ATCAAAATTT TGACATGCAC 240  
CATTTTAATA TGGGCTGTAC AATATGATAA TAACGTAAGA TAAAAACTA AATAATAAAT 300  
ATAAATAAAA AAAAAAAAAA AAAAAAAAAA ATCAACTATA TAGTATGTAT AATATATATA 360  
TATATATATA TATATATATA TATATATATA TATTTATTTT TATTTATTTA TTAATTTTTT 420  
TTTTTTTATA TTATCTTTTT AGTCTGATAT AAACAAGAGT TGGAAAAAA ATACGTATGT 480  
AGATAAGAAA TTGAATAAAC TATTTAACAG AAGTTTAGGA GAATCTCAAG TAAATGGTGA 540  
ATTAGCTAGT GAAGAAGTAA AGGAAAAAT TCTTGACTTA TTAGAAGAAG GAAATACATT 600  
AACTGAAAGT GTAGATGATA ATAAAAATTT AGAAGAAGCC GAAGATATAA AGGAAAATAT 660  
CTTATTAAGT AATATAGAAG AACCAAAGA AAATATTATT GACAATTTAT TAAATAATAT 720  
TGGACAAAAT TCAGAAAAAC AAGAAAGTGT ATCAGAAAAT GTACAAGTCA GTGATGAACT 780  
TTTTAATGAA TTATTAAATA GTGTAGATGT TAATGGAGAA GTAAAAGAAA ATATTTTGG 840  
GGAAAGTCAA GTTAATGACG ATATTTTAA TAGTTTAGTA AAAAGTGTTT AACAAGAACA 900  
ACAACACAAT GTTGAAGAAA AAGTTGAAGA AAGTGTAGAA GAAATGACG AAGAAAGTGT 960  
AGAAGAAAAT GTAGAAGAAA ATGTAGAAGA AAATGACGAC GGAAGTGTAG CCTCAAGTGT 1020  
TGAAGAAAGT ATAGCTTCAA GTGTTGATGA AAGTATAGAT TCAAGTATTG AAGAAAATGT 1089  
AGCTCCAAC TTTGAAGAAA TCGTAGCTCC AAGTGTTGTA GAACTGTGG CTCCAAGTGT 1140  
TGAAGAAAGT GTAGAAGAAA ATGTTGAAGA AAGTGTAGCT GAAATGTTG AAGAAAGTGT 1200

*FIG. 1a*



AGCTGAAAAT GTTGAAGAAA GTGTAGCTGA AAATGTTGAA GAAAGTGTAG CTGAAAATGT 1260  
TGAAGAAATC GTAGCTCCAA CTGTTGAAGA AATCGTAGCT CGAACTGTTG AAGAAATTGT 1320  
AGCTCCAAGT GTTGTAGAAA GTGTGGCTCC AAGTGTGAA GAAAGTGTAG AAGAAAATGT 1380  
TGAAGAAAGT GTAGCTGAAA ATGTTGAAGA AAGTGTAGCT GAAAATGTTG AAGAAAGTGT 1440  
AGCTGAAAAT GTTGAAGAAA GTGTAGCTGA AAATGTTGAA GAAAGTGTAG CTGAAAATGT 1500  
TGAAGAAATC GTAGCTCCAA CTGTTGAAGA AATCGTAGCT CCAACTGTTG AAGAAATTGT 1560  
AGCTCCAAGT GTTGTAGAAA GTGTGGCTCC AAGTGTGAA GAAAGTGTAG AAGAAAATGT 1620  
TGAAGAAAGT GTAGCTGAAA ATGTTGAAGA AAGTGTAGCT GAAAATGTTG AAGAAAGTGT 1680  
AGCTGAAAAT GTTGAAGAAA GTGTAGCTGA AAATGTTGAA GAAAGTGTAG CTGAAAATGT 1740  
TGAAGAAAGT GTAGCTGAAA ATGTTGAAGA AAGTGTAGCT GAAAATGTTG AAGAAATCGT 1800  
AGCTCCAACT GTTGAAGAAA TCGTAGCTCC AACTGTTGAA GAAATTGTAG CTCCAAGTGT 1860  
TG TAGAAAGT GTGGCTCCAA GTGTTGAAGA AAGTGTAGAA GAAAATGTTG AAGAAAGTGT 1920  
AGCTGAAAAT GTTGAAGAAA GTGTAGCTGA AAATGTTGAA GAAAGTGTAG CTGAAAATGT 1980  
TGAAGAAAGT GTAGCTGAAA ATGTTGAAGA AATCGTAGCT CCAACTGTTG AAGAAATCGT 2040  
AGCTCCAACT GTTGAAGAAA TTGTAGCTCC AAGTGTGTA GAAAGTGTGG CTCCAAGTGT 2100  
TGAAGAAAGT GTAGAAGAAA ATGTTGAAGA AAGTGTAGCT GAAAATGTTG AAGAAAGTGT 2160  
AGCTGAAAAT GTTGAAGAAA GTGTAGCTGA AAATGTTGAA GAAATCGTAG CTCCAAGTGT 2220  
TGAAGAAATC GTAGCTCCAA CTGTTGAAGA AATTGTAGCT CCAAGTGTG TAGAAAGTGT 2280  
GGCTCCAAGT GTTGAAGAAA GTGTAGAAGA AAATGTTGAA GAAAGTGTAG CTGAAAATGT 2340  
TGAAGAAAGT GTAGCTGAAA ATGTTGAAGA AAGTGTAGCT GAAAATGTTG AAGAAAGTGT 2400

**FIG. 1b**

AGCTGAAAAT GTTGAAGAAA TCGTAGCTCC AACTGTTGAA GAAATCGTAG CTCCAACTGT 2460  
TGAAGAAATT GTAGCTCCAA GTGTTGTAGA AAGTGTGGCT CCAAGTGTG AAGAAAGTGT 2520  
AGAAGAAAAT GTTGAAGAAA GTGTAGCTGA AAATGTTGAA GAAAGTGTAG CTGAAAATGT 2580  
TGAAGAAAGT GTAGCTGAAA ATGTTGAAGA AAGTGTAGCT GCAACTGTTG AAGAAATTGT 2640  
AGCTCCAAGT GTTGAAGAAA GTGTAGCTCC AAGTGTGAA GAAAGTGTG CTGAAAACGT 2700  
TGCAACAAAT TTATCAGACA ATCTTTTAAG TAATTTATTA GGTGGTATCG AACTGAGGA 2760  
AATAAAGGAC AGTATATTAA ATGAGATAGA AGAAGTAAAA GAAATGTAG TCACCAGAAT 2820  
ACTAGAAAAC GTAGAAGAAA CTACAGCTGA AAGTGTAAC ACTTTTAGTA ACATATTAGA 2880  
GGAGATACAA GAAAATACTA TTACTAATGA TACTATAGAG GAAAATTAG AAGAACTCCA 2940  
CGAAAATGTA TTAAGTGCCG CTTTAGAAAA TACCCAAAGT GAAGAGGAAA AGAAAGAAGT 3000  
AATAGATGTA ATTGAAGAAG TAAAAGAAGA GGTGCTACC ACTTTAATAG AACTGTGGA 3060  
ACAGGCAGAA GAAAAGAGCG CAAATACAAT TACGGAAATA TTTGAAAATT TAGAAGAAAA 3120  
TGCAGTAGAA AGTAATGAAA ATGTTGCAGA GAATTTAGAG AAATTAAACG AACTGTATT 3180  
TAATACTGTA TTAGATAAAG TAGAGGAAAC AGTAGAAATT AGCGGAGAAA GTTTAGAAAA 3240  
CAATGAAATG GATAAAGCAT TTTTGTAGTA AATATTTGAT AATGTAAAAG GAATACAAGA 3300  
AAATTTATTA ACAGGTATGT TTCGAAGTAT AGAAACCAGT ATAGTAATCC AATCAGAAGA 3360  
AAAGGTTGAT TTGAATGAAA ATGTGGTTAG TTCGATTTTA GATAATATAG AAAATATGAA 3420  
AGAAGGTTTA TTAAATAAAT TAGAAAATAT TTCAAGTACT GAAGGTGTTT AAGAACTGT 3480  
AACTGAACAT GTAGAACAAA ATGTATATGT GGATGTTGAT GTTCCTGCTA TGAAAGATCA 3540  
ATTTTAGGA ATATTAAATG AGGCAGGAGG GTTGAAAGAA ATGTTTTTTA ATTTGGAAGA 3600

**FIG. 1c**

TGTATTTAAA AGTGAAAGTG ATGTAATTAC TGTAGAAGAA ATTAAGGATG AACCGGTTCA 3660  
AAAAGAGGTA GAAAAAGAAA CTGTTAGTAT TATTGAAGAA ATGGAAGAAA ATATTGTAGA 3720  
TGTATTAGAG GAAGAAAAAG AAGATTTAAG AGACAAGATG ATAGATGCAG TAGAAGAATC 3780  
CATAGAAATA TCTTCAGATT CTAAAGAAGA AACTGAATCT ATTAAGATA AAGAAAAAGA 3840  
TGTTTCACTA GTTGTGAAG AAGTTCAAGA CAATGATATG GATGAAAGTG TTGAGAAAGT 3900  
TTTAGAATTG AAAAATATGG AAGAGGAGTT AATGAAGGAT GCTGTTGAAA TAAATGACAT 3960  
TACTAGCAAA CTTATTGAAG AAACCTCAAGA GTTAAATGAA GTAGAAGCAG ATTTAATAAA 4020  
AGATATGGAA AAATTAAAAG AATTAGAAAA AGCATTATCA GAAGATTCTA AAGAAATAAT 4080  
AGATGCAAAA GATGATACAT TAGAAAAAGT TATTGAAGAG GAACATGATA TAACGACGAC 4140  
GTTGGATGAA GTTGTAGAAT TAAAAGATGT CGAAGAAGAC AAGATCGAAA AAGTATCTGA 4200  
TTTAAAAGAT CTTGAAGAAG ATATATTAAA AGAAGTAAA GAAATCAAAG AACTTGAAAG 4260  
TGAAATTTTA GAAGATTATA AAGAATTAAA AACTATTGAA ACAGATATTT TAGAAGAGAA 4320  
AAAAGAAATA GAAAAAGATC ATTTTGAAAA ATTGAAGAA GAAGCTGAAG AAATAAAAGA 4380  
TCTTGAAGCA GATATATTAA AAGAAGTATC TTCATTAGAA GTTGAAGAAG AAAAAAATT 4440  
AGAAGAAGTA CACGAATTAA AAGAAGAGGT AGAACATATA ATAAGTGGTG ATGCGCATAT 4500  
AAAAGGTTTG GAAGAAGATG ATTTAGAAGA AGTAGATGAT TTAAAAGGAA GTATATTAGA 4560  
CATGTTAAAG GGAGATATGG AATTAGGGGA TATGGATAAG GAAAGTTTAG AAGATGTAAC 4620  
AACAAACTT GGAGAAAGAG TTGAATCCTT AAAAGATGTT TTATCTAGTG CATTAGGCAT 4680  
GGATGAAGAA CAAATGAAAA CAAGAAAAAA AGCTCAAAGA CCTAAGTTGG AAGAAGTATT 4740  
ATTAAGAGAA GAGGTAAAG AAGAACCAA GAAAAAATA ACAAAAAAGA AAGTAAGGTT 4800

**FIG. 1d**

TGATATTAAG GATAAGGAAC CAAAAGATGA AATAGTAGAA GTTGAAATGA AAGATGAAGA 4860  
TATAGAAGAA GATGTAGAAG AAGATATAGA AGAAGATATA GAAGAAGATA AAGTTGAAGA 4920  
TATAGATGAA GATATAGATG AAGATATAGG TGAAGACAAA GATGAAGTTA TAGATTTAAT 4980  
AGTCCAAAAA GAGAAACGCA TTGAAAAGGT TAAAGCGAAA AAGAAAAAAT TAGAAAAAAA 5040  
AGTTGAAGAA GGTGTTAGTG GTCTTAAAAA ACACGTAGAC GAAGTAATGA AATATGTTCA 5100  
AAAAATTGAT AAAGAAGTTG ATAAAGAAGT ATCTAAAGCT TTAGAATCAA AAAATGATGT 5160  
TACTAATGTT TTA AACAAA ATCAAGATTT TTTTAGTAAA GTTAAAAACT TCGTAAAAAA 5220  
ATATAAGTA TTTGCTGCAC CATT CATATC TGCCGTTGCA GCATTTGCAT CATATGTAGT 5280  
TGGGTTCTTT ACATTTTCTT TATTTTCATC ATGTGTAACA ATAGCTTCTT CAACTTACTT 5340  
ATTATCAAAA GTTGACAAAA CTATAAATAA AAATAAGGAG AGACCGTTTT ATTCATTTGT 5400  
ATTTGATATC TTTAAGAATT TAAACATTA TTTACAACAA ATGAAAGAAA AATTTAGTAA 5460  
AGAAAAAAT AATAATGTAA TAGAAGTAAC AAACAAAGCT GAGAAAAAAG GTAATGTACA 5520  
GGTAACAAAT AAAACCGAGA AAACAACTAA AGTTGATAAA AATAATAAAG TACCGAAAAA 5580  
AAGAAGAACG CAAAATCAA AATAAAAAAT TGCAGAAGAG TGAAATGATT GGAGGGAACA 5640  
ATAAAATTAA TCGATAAAAA ATATAAAAAAT GTATATATTA TGTAATATA TATAAATAAA 5700  
TAAATAAATA CATACATATA TATATATATA TATATGTATC TTTTACAAA ATTTTAAAT 5760  
TTTAAATTT ATATATATTA ATATTTATAT TTTCCATAT ATAATTTTAT TTTCAATATT 5820  
TTATTTTAA TTATAAATGT TTTTACAGA GTTTATGTTT TTAATTAAT ATATAGATTT 5880  
CTGTAAGAAA CTGTATATTA TTCATACGAT ATATGTAATA TTAATTATTT GTGTTTTATT 5940

***FIG. 1e***

AAAATTTATA TTATATAATA TATATATATA TATATATGTA TATATATTAG AAGATAAAAA 6000  
TTTAGCTTAT TTGCTTGTT ATGCAAATAA GCTTTTTTTT TTTTTTTTTT TTTTTTTTTC 6060  
ATATAAACGA TGTTTAATTT TTAATTTTTA ATATTTTATA TAAATATTT TTCCTAAAAA 6120  
AAAAAAAAAT TAAAAAAAC TTATATTTTCG AA 6152

***FIG. 1f***

ATG ACA AAT AGT AAT TAC AAA TCA AAT AAT AAA ACA TAT AAT GAA AAT	48
Met Thr Asn Ser Asn Tyr Lys Ser Asn Asn Lys Thr Tyr Asn Glu Asn	
1 5 10 15	
AAT AAT GAA CAA ATA ACT ACC ATA TTT AAT AGA ACA AAT ATG AAT CCG	96
Asn Asn Glu Gln Ile Thr Thr Ile Phe Asn Arg Thr Asn Met Asn Pro	
20 25 30	
ATA AAA AAA TGT CAT ATG AGA GAA AAA ATA AAT AAG TAC TTT TTT TTG	144
Ile Lys Lys Cys His Met Arg Glu Lys Ile Asn Lys Tyr Phe Phe Leu	
35 40 45	
ATC AAA ATT TTG ACA TGC ACC ATT TTA ATA TGG GCT GTA CAA TAT GAT	192
Ile Lys Ile Leu Thr Cys Thr Ile Leu Ile Trp Ala Val Gln Tyr Asp	
50 55 60	
AAT AAC TCT GAT ATA AAC AAG AGT TGG AAA AAA AAT ACG TAT GTA GAT	240
Asn Asn Ser Asp Ile Asn Lys Ser Trp Lys Lys Asn Thr Tyr Val Asp	
65 70 75 80	
AAG AAA TTG AAT AAA CTA TTT AAC AGA AGT TTA GGA GAA TCT CAA GTA	288
Lys Lys Leu Asn Lys Leu Phe Asn Arg Ser Leu Gly Glu Ser Gln Val	
85 90 95	
AAT GGT GAA TTA GCT AGT GAA GAA GTA AAG GAA AAA ATT CTT GAC TTA	336
Asn Gly Glu Leu Ala Ser Glu Glu Val Lys Glu Lys Ile Leu Asp Leu	
100 105 110	
TTA GAA GAA GGA AAT ACA TTA ACT GAA AGT GTA GAT GAT AAT AAA AAT	384
Leu Glu Glu Gly Asn Thr Leu Thr Glu Ser Val Asp Asp Asn Lys Asn	
115 120 125	
TTA GAA GAA GCC GAA GAT ATA AAG GAA AAT ATC TTA TTA AGT AAT ATA	432
Leu Glu Glu Ala Glu Asp Ile Lys Glu Asn Ile Leu Leu Ser Asn Ile	
130 135 140	
GAA GAA CCA AAA GAA AAT ATT ATT GAC AAT TTA TTA AAT AAT ATT GGA	480
Glu Glu Pro Lys Glu Asn Ile Ile Asp Asn Leu Leu Asn Asn Ile Gly	
145 150 155 160	

**FIG. 2a**

CAA AAT TCA GAA AAA CAA GAA AGT GTA TCA GAA AAT GTA CAA GTC AGT	528
Gln Asn Ser Glu Lys Gln Glu Ser Val Ser Glu Asn Val Gln Val Ser	
165 170 175	
GAT GAA CTT TTT AAT GAA TTA TTA AAT AGT GTA GAT GTT AAT GGA GAA	576
Asp Glu Leu Phe Asn Glu Leu Leu Asn Ser Val Asp Val Asn Gly Glu	
180 185 190	
GTA AAA GAA AAT ATT TTG GAG GAA AGT CAA GTT AAT GAC GAT ATT TTT	624
Val Lys Glu Asn Ile Leu Glu Glu Ser Gln Val Asn Asp Asp Ile Phe	
195 200 205	
AAT AGT TTA GTA AAA AGT GTT CAA CAA GAA CAA CAA CAC AAT GTT GAA	672
Asn Ser Leu Val Lys Ser Val Gln Gln Glu Gln Gln His Asn Val Glu	
210 215 220	
GAA AAA GTT GAA GAA AGT GTA GAA GAA AAT GAC GAA GAA AGT GTA GAA	720
Glu Lys Val Glu Glu Ser Val Glu Glu Asn Asp Glu Glu Ser Val Glu	
225 230 235 240	
GAA AAT GTA GAA GAA AAT GTA GAA GAA AAT GAC GAC GGA AGT GTA GCC	768
Glu Asn Val Glu Glu Asn Val Glu Glu Asn Asp Asp Gly Ser Val Ala	
245 250 255	
TCA AGT GTT GAA GAA AGT ATA GCT TCA AGT GTT GAT GAA AGT ATA GAT	816
Ser Ser Val Glu Glu Ser Ile Ala Ser Ser Val Asp Glu Ser Ile Asp	
260 265 270	
TCA AGT ATT GAA GAA AAT GTA GCT CCA ACT GTT GAA GAA ATC GTA GCT	864
Ser Ser Ile Glu Glu Asn Val Ala Pro Thr Val Glu Glu Ile Val Ala	
275 280 285	
CCA AGT GTT GTA GAA AGT GTG GCT CCA AGT GTT GAA GAA AGT GTA GAA	912
Pro Ser Val Val Glu Ser Val Ala Pro Ser Val Glu Glu Ser Val Glu	
290 295 300	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	960
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
305 310 315 320	

**FIG. 2b**



GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1008
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
325 330 335	
GAA AAT GTT GAA GAA ATC CTA GCT CCA ACT GTT GAA GAA ATC GTA GCT	1056
Glu Asn Val Glu Glu Ile Val Ala Pro Thr Val Glu Glu Ile Val Ala	
340 345 350	
CCA ACT GTT GAA GAA ATT GTA GCT CCA AGT GTT GTA GAA AGT GTG GCT	1104
Pro Thr Val Glu Glu Ile Val Ala Pro Ser Val Val Glu Ser Val Ala	
355 360 365	
CCA AGT GTT GAA GAA AGT GTA GAA GAA AAT GTT GAA GAA AGT GTA GCT	1152
Pro Ser Val Glu Glu Ser Val Glu Glu Asn Val Glu Glu Ser Val Ala	
370 375 380	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1200
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
385 390 395 400	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1248
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
405 410 415	
GAA AAT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA GAA ATC GTA GCT	1296
Glu Asn Val Glu Glu Ile Val Ala Pro Thr Val Glu Glu Ile Val Ala	
420 425 430	
CCA ACT GTT GAA GAA ATT GTA GCT CCA AGT GTT GTA GAA AGT GTG GCT	1344
Pro Thr Val Glu Glu Ile Val Ala Pro Ser Val Val Glu Ser Val Ala	
435 440 445	
CCA AGT GTT GAA GAA AGT GTA GAA GAA AAT GTT GAA GAA AGT GTA GCT	1392
Pro Ser Val Glu Glu Ser Val Glu Glu Asn Val Glu Glu Ser Val Ala	
450 455 460	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1440
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
465 470 475 480	

**FIG. 2c**

GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1488
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
485 490 495	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1536
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
500 505 510	
GAA AAT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA GAA ATC GTA GCT	1584
Glu Asn Val Glu Glu Ile Val Ala Pro Thr Val Glu Glu Ile Val Ala	
515 520 525	
CCA ACT GTT GAA GAA ATT GTA GCT CCA AGT GTT GTA GAA AGT GTG GCT	1632
Pro Thr Val Glu Glu Ile Val Ala Pro Ser Val Val Glu Ser Val Ala	
530 535 540	
CCA AGT GTT GAA GAA AGT GTA GAA GAA AAT GTT GAA GAA AGT GTA GCT	1680
Pro Ser Val Glu Glu Ser Val Glu Glu Asn Val Glu Glu Ser Val Ala	
545 550 555 560	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1728
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
565 570 575	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA ATC GTA GCT	1776
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ile Val Ala	
580 585 590	
CCA ACT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA GAA ATT GTA GCT	1824
Pro Thr Val Glu Glu Ile Val Ala Pro Thr Val Glu Glu Ile Val Ala	
595 600 605	
CCA AGT GTT GTA GAA AGT GTG GCT CCA AGT GTT GAA GAA AGT GTA GAA	1872
Pro Ser Val Val Glu Ser Val Ala Pro Ser Val Glu Glu Ser Val Glu	
610 615 620	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	1920
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
625 630 635 640	

**FIG. 2d**

GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA ATC GTA GCT	1968
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ile Val Ala	
645 650 655	
CCA ACT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA GAA ATT GTA GCT	2016
Pro Thr Val Glu Glu Ile Val Ala Pro Thr Val Glu Glu Ile Val Ala	
660 665 670	
CCA AGT GTT GTA GAA AGT GTG GCT CCA AGT GTT GAA GAA AGT GTA GAA	2064
Pro Ser Val Val Glu Ser Val Ala Pro Ser Val Glu Glu Ser Val Glu	
675 680 685	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	2112
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
690 695 700	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	2160
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
705 710 715 720	
GAA AAT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA GAA ATC GTA GCT	2208
Glu Asn Val Glu Glu Ile Val Ala Pro Thr Val Glu Glu Ile Val Ala	
725 730 735	
CCA ACT GTT GAA GAA ATT GTA GCT CCA AGT GTT GTA GAA AGT GTG GCT	2256
Pro Thr Val Glu Glu Ile Val Ala Pro Ser Val Val Glu Ser Val Ala	
740 745 750	
CCA AGT GTT GAA GAA AGT CTA GAA GAA AAT GTT GAA GAA AGT GTA GCT	2304
Pro Ser Val Glu Glu Ser Val Glu Glu Asn Val Glu Glu Ser Val Ala	
755 760 765	
GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT	2352
Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala	
770 775 780	
GAA AAT GTT GAA GAA AGT GTA GCT CCA ACT GTT GAA GAA ATT GTA GCT	2400
Glu Asn Val Glu Glu Ser Val Ala Pro Thr Val Glu Glu Ile Val Ala	
785 790 795 800	

**FIG. 2e**

CCA AGT GTT GAA GAA AGT GTA GCT CCA AGT GTT GAA GAA AGT GTT GCT	2448
Pro Ser Val Glu Glu Ser Val Ala Pro Ser Val Glu Glu Ser Val Ala	
805 810 815	
GAA AAC GTT GCA ACA AAT TTA TCA GAC AAT CTT TTA AGT AAT TTA TTA	2496
Glu Asn Val Ala Thr Asn Leu Ser Asp Asn Leu Leu Ser Asn Leu Leu	
820 825 830	
GGT GGT ATC GAA ACT GAG GAA ATA AAG GAC AGT ATA TTA AAT GAG ATA	2544
Gly Gly Ile Glu Thr Glu Glu Ile Lys Asp Ser Ile Leu Asn Glu Ile	
835 840 845	
GAA GAA GTA AAA GAA AAT GTA GTC ACC ACA ATA CTA GAA AAC GTA GAA	2592
Glu Glu Val Lys Glu Asn Val Val Thr Thr Ile Leu Glu Asn Val Glu	
850 855 860	
GAA ACT ACA GCT GAA AGT GTA ACT ACT TTT AGT AAC ATA TTA GAG GAG	2640
Glu Thr Thr Ala Glu Ser Val Thr Thr Phe Ser Asn Ile Leu Glu Glu	
865 870 875 880	
ATA CAA GAA AAT ACT ATT ACT AAT GAT ACT ATA GAG GAA AAA TTA GAA	2688
Ile Gln Glu Asn Thr Ile Thr Asn Asp Thr Ile Glu Glu Lys Leu Glu	
885 890 895	
GAA CTC CAC GAA AAT GTA TTA AGT GCC GCT TTA GAA AAT AGC CAA AGT	2736
Glu Leu His Glu Asn Val Leu Ser Ala Ala Leu Glu Asn Thr Gln Ser	
900 905 910	
GAA GAG GAA AAG AAA GAA GTA ATA GAT GTA ATT GAA GAA CTA AAA GAA	2784
Glu Glu Glu Lys Lys Glu Val Ile Asp Val Ile Glu Glu Val Lys Glu	
915 920 925	
GAG GTC GCT ACC ACT TTA ATA GAA ACT GTG GAA CAG GCA GAA GAA AAG	2832
Glu Val Ala Thr Thr Leu Ile Glu Thr Val Glu Gln Ala Glu Glu Lys	
930 935 940	
AGC GCA AAT ACA ATT ACG GAA ATA TTT GAA AAT TTA GAA GAA AAT GCA	2880
Ser Ala Asn Thr Ile Thr Glu Ile Phe Glu Asn Leu Glu Glu Asn Ala	
945 950 955 960	

**FIG. 2f**

GTA GAA AGT AAT GAA AAT GTT GCA GAG AAT TTA GAG AAA TTA AAC GAA 2928  
Val Glu Ser Asn Glu Asn Val Ala Glu Asn Leu Glu Lys Leu Asn Glu  
965 970 975

ACT GTA TTT AAT ACT GTA TTA GAT AAA GTA GAG GAA ACA GTA GAA ATT 2976  
Thr Val Phe Asn Thr Val Leu Asp Lys Val Glu Glu Thr Val Glu Ile  
980 985 990

AGC GGA GAA AGT TTA GAA AAC AAT GAA ATG GAT AAA GCA TTT TTT AGT 3024  
Ser Gly Glu Ser Leu Glu Asn Asn Glu Met Asp Lys Ala Phe Phe Ser  
995 1000 1005

GAA ATA TTT GAT AAT GTA AAA GGA ATA CAA GAA AAT TTA TTA ACA GGT 3072  
Glu Ile Phe Asp Asn Val Lys Gly Ile Gln Glu Asn Leu Leu Thr Gly  
1010 1015 1020

ATG TTT CGA AGT ATA GAA ACC AGT ATA GTA ATC CAA TCA GAA GAA AAG 3120  
Met Phe Arg Ser Ile Glu Thr Ser Ile Val Ile Gln Ser Glu Glu Lys  
1025 1030 1035 1040

GTT GAT TTG AAT GAA AAT GTG GTT AGT TCG ATT TTA GAT AAT ATA GAA 3168  
Val Asp Leu Asn Glu Asn Val Val Ser Ser Ile Leu Asp Asn Ile Glu  
1045 1050 1055

AAT ATG AAA GAA GGT TTA TTA AAT AAA TTA GAA AAT ATT TCA AGT ACT 3216  
Asn Met Lys Glu Gly Leu Leu Asn Lys Leu Glu Asn Ile Ser Ser Thr  
1060 1065 1070

GAA GGT GTT CAA GAA ACT GTA ACT GAA CAT GTA GAA CAA AAT GTA TAT 3264  
Glu Gly Val Gln Glu Thr Val Thr Glu His Val Glu Gln Asn Val Tyr  
1075 1080 1085

GTG GAT GTT GAT GTT CCT GCT ATG AAA GAT CAA TTT TTA GGA ATA TTA 3312  
Val Asp Val Asp Val Pro Ala Met Lys Asp Gln Phe Leu Gly Ile Leu  
1090 1095 1100

AAT GAG GCA GGA GGG TTG AAA GAA ATG TTT TTT AAT TTG GAA GAT GTA 3360  
Asn Glu Ala Gly Leu Lys Glu Met Phe Phe Asn Leu Glu Asp Val  
1105 1110 1115 1120

**FIG. 2g**

TTT AAA AGT GAA AGT GAT GTA ATT ACT GTA GAA GAA ATT AAG GAT GAA 3408  
Phe Lys Ser Glu Ser Asp Val Ile Thr Val Glu Glu Ile Lys Asp Glu  
1125 1130 1135

CCG GTT CAA AAA GAG GTA GAA AAA GAA ACT GTT AGT ATT ATT GAA GAA 3456  
Pro Val Gln Lys Glu Val Glu Lys Glu Thr Val Ser Ile Ile Glu Glu  
1140 1145 1150

ATG GAA GAA AAT ATT GTA GAT GTA TTA GAG GAA GAA AAA GAA GAT TTA 3504  
Met Glu Glu Asn Ile Val Asp Val Leu Glu Glu Glu Lys Glu Asp Leu  
1155 1160 1165

ACA GAC AAG ATG ATA GAT GCA GTA GAA GAA TCC ATA GAA ATA TCT TCA 3552  
Thr Asp Lys Met Ile Asp Ala Val Glu Glu Ser Ile Glu Ile Ser Ser  
1170 1175 1180

GAT TCT AAA GAA GAA ACT GAA TCT ATT AAA GAT AAA GAA AAA GAT GTT 3600  
Asp Ser Lys Glu Glu Thr Glu Ser Ile Lys Asp Lys Glu Lys Asp Val  
1185 1190 1195 1200

TCA CTA GTT GTT GAA GAA GTT CAA GAC AAT GAT ATG GAT GAA AGT GTT 3648  
Ser Leu Val Val Glu Glu Val Gln Asp Asn Asp Met Asp Glu Ser Val  
1205 1210 1215

GAG AAA GTT TTA GAA TTG AAA AAT ATG GAA GAG GAG TTA ATG AAG GAT 3696  
Glu Lys Val Leu Glu Leu Lys Asn Met Glu Glu Glu Leu Met Lys Asp  
1220 1225 1230

GCT GTT GAA ATA AAT GAC ATT ACT AGC AAA CTT ATT GAA GAA ACT CAA 3744  
Ala Val Glu Ile Asn Asp Ile Thr Ser Lys Leu Ile Glu Glu Thr Gln  
1235 1240 1245

GAG TTA AAT GAA GTA GAA GCA GAT TTA ATA AAA GAT ATG GAA AAA TTA 3792  
Glu Leu Asn Glu Val Glu Ala Asp Leu Ile Lys Asp Met Glu Lys Leu  
1250 1255 1260

AAA GAA TTA GAA AAA GCA TTA TCA GAA GAT TCT AAA GAA ATA ATA GAT 3840  
Lys Glu Leu Glu Lys Ala Leu Ser Glu Asp Ser Lys Glu Ile Ile Asp  
1265 1270 1275 1280

**FIG. 2h**

GCA AAA GAT GAT ACA TTA GAA AAA GTT ATT GAA GAG GAA CAT GAT ATA	3888
Ala Lys Asp Asp Thr Leu Glu Lys Val Ile Glu Glu Glu His Asp Ile	
1285	1290 1295
ACG ACG ACG TTG GAT GAA GTT GTA GAA TTA AAA GAT GTC GAA GAA GAC	3936
Thr Thr Thr Leu Asp Glu Val Val Glu Leu Lys Asp Val Glu Glu Asp	
1300	1305 1310
AAG ATC GAA AAA GTA TCT GAT TTA AAA GAT CTT GAA GAA GAT ATA TTA	3984
Lys Ile Glu Lys Val Ser Asp Leu Lys Asp Leu Glu Glu Asp Ile Leu	
1315	1320 1325
AAA GAA GTA AAA GAA ATC AAA GAA CTT GAA AGT GAA ATT TTA GAA GAT	4032
Lys Glu Val Lys Glu Ile Lys Glu Leu Glu Ser Glu Ile Leu Glu Asp	
1330	1335 1340
TAT AAA GAA TTA AAA ACT ATT GAA ACA GAT ATT TTA GAA GAG AAA AAA	4080
Tyr Lys Glu Leu Lys Thr Ile Glu Thr Asp Ile Leu Glu Glu Lys Lys	
1345	1350 1355 1360
GAA ATA GAA AAA GAT CAT TTT GAA AAA TTC GAA GAA GAA GCT GAA GAA	4128
Glu Ile Glu Lys Asp His Phe Glu Lys Phe Glu Glu Glu Ala Glu Glu	
1365	1370 1375
ATA AAA GAT CTT GAA GCA GAT ATA TTA AAA GAA GTA TCT TCA TTA GAA	4176
Ile Lys Asp Leu Glu Ala Asp Ile Leu Lys Glu Val Ser Ser Leu Glu	
1380	1385 1390
GTT GAA GAA GAA AAA AAA TTA GAA GAA GTA CAC GAA TTA AAA GAA GAG	4224
Val Glu Glu Glu Lys Lys Leu Glu Glu Val His Glu Leu Lys Glu Glu	
1395	1400 1405
GTA GAA CAT ATA ATA AGT GGT GAT GCG CAT ATA AAA GGT TTG GAA GAA	4272
Val Glu His Ile Ile Ser Gly Asp Ala His Ile Lys Gly Leu Glu Glu	
1410	1415 1420
GAT GAT TTA GAA GAA GTA GAT GAT TTA AAA GGA AGT ATA TTA GAC ATG	4320
Asp Asp Leu Glu Glu Val Asp Asp Leu Lys Gly Ser Ile Leu Asp Met	
1425	1430 1435 1440

**FIG. 2i**

TTA AAG GGA GAT ATG GAA TTA GGG GAT ATG GAT AAG GAA AGT TTA GAA	4368
Leu Lys Gly Asp Met Glu Leu Gly Asp Met Asp Lys Glu Ser Leu Glu	
1445 1450 1455	
GAT GTA ACA ACA AAA CTT GGA GAA AGA GTT GAA TCC TTA AAA GAT GTT	4416
Asp Val Thr Thr Lys Leu Gly Glu Arg Val Glu Ser Leu Lys Asp Val	
1460 1465 1470	
TTA TCT AGT GCA TTA GGC ATG GAT GAA GAA CAA ATG AAA ACA AGA AAA	4464
Leu Ser Ser Ala Leu Gly Met Asp Glu Glu Gln Met Lys Thr Arg Lys	
1475 1480 1485	
AAA GCT CAA AGA CCT AAG TTG GAA GAA GTA TTA TTA AAA GAA GAG GTT	4512
Lys Ala Gln Arg Pro Lys Leu Glu Glu Val Leu Leu Lys Glu Glu Val	
1490 1495 1500	
AAA GAA GAA CCA AAG AAA AAA ATA ACA AAA AAG AAA GTA AGG TTT GAT	4560
Lys Glu Glu Pro Lys Lys Lys Ile Thr Lys Lys Lys Val Arg Phe Asp	
1505 1510 1515 1520	
ATT AAG GAT AAG GAA CCA AAA GAT GAA ATA GTA GAA GTT GAA ATG AAA	4608
Ile Lys Asp Lys Glu Pro Lys Asp Glu Ile Val Glu Val Glu Met Lys	
1525 1530 1535	
GAT GAA GAT ATA GAA GAA GAT GTA GAA GAA GAT ATA GAA GAA GAT ATA	4656
Asp Glu Asp Ile Glu Glu Asp Val Glu Glu Asp Ile Glu Glu Asp Ile	
1540 1545 1550	
GAA GAA GAT AAA GTT GAA GAT ATA GAT GAA GAT ATA GAT GAA GAT ATA	4704
Glu Glu Asp Lys Val Glu Asp Ile Asp Glu Asp Ile Asp Glu Asp Ile	
1555 1560 1565	
GGT GAA GAC AAA GAT GAA GTT ATA GAT TTA ATA GTC CAA AAA GAG AAA	4752
Gly Glu Asp Lys Asp Glu Val Ile Asp Leu Ile Val Gln Lys Glu Lys	
1570 1575 1580	
CGC ATT GAA AAG GTT AAA GCG AAA AAG AAA AAA TTA GAA AAA AAA GTT	4800
Arg Ile Glu Lys Val Lys Ala Lys Lys Lys Lys Leu Glu Lys Lys Val	
1585 1590 1595 1600	

**FIG. 2j**



GAA GAA GGT GTT AGT GGT CTT AAA AAA CAC GTA GAC GAA GTA ATG AAA	4848
Glu Glu Gly Val Ser Gly Leu Lys Lys His Val Asp Glu Val Met Lys	
1605 1610 1615	
TAT GTT CAA AAA ATT GAT AAA GAA GTT GAT AAA GAA GTA TCT AAA GCT	4896
Tyr Val Gln Lys Ile Asp Lys Glu Val Asp Lys Glu Val Ser Lys Ala	
1620 1625 1630	
TTA GAA TCA AAA AAT GAT GTT ACT AAT GTT TTA AAA CAA AAT CAA GAT	4944
Leu Glu Ser Lys Asn Asp Val Thr Asn Val Leu Lys Gln Asn Gln Asp	
1635 1640 1645	
TTT TTT AGT AAA GTT AAA AAC TTC GTA AAA AAA TAT AAA GTA TTT GCT	4992
Phe Phe Ser Lys Val Lys Asn Phe Val Lys Lys Tyr Lys Val Phe Ala	
1650 1655 1660	
GCA CCA TTC ATA TCT GCC GTT GCA GCA TTT GCA TCA TAT GTA GTT GGG	5040
Ala Pro Phe Ile Ser Ala Val Ala Ala Phe Ala Ser Tyr Val Val Gly	
1665 1670 1675 1680	
TTC TTT ACA TTT TCT TTA TTT TCA TCA TGT GTA ACA ATA GCT TCT TCA	5088
Phe Phe Thr Phe Ser Leu Phe Ser Ser Cys Val Thr Ile Ala Ser Ser	
1685 1690 1695	
ACT TAC TTA TTA TCA AAA GTT GAC AAA ACT ATA AAT AAA AAT AAG GAG	5136
Thr Tyr Leu Leu Ser Lys Val Asp Lys Thr Ile Asn Lys Asn Lys Glu	
1700 1705 1710	
AGA CCG TTT TAT TCA TTT GTA TTT GAT ATC TTT AAG AAT TTA AAA CAT	5184
Arg Pro Phe Tyr Ser Phe Val Phe Asp Ile Phe Lys Asn Leu Lys His	
1715 1720 1725	
TAT TTA CAA CAA ATG AAA GAA AAA TTT AGT AAA GAA AAA AAT AAT AAT	5232
Tyr Leu Gln Gln Met Lys Glu Lys Phe Ser Lys Glu Lys Asn Asn Asn	
1730 1735 1740	
GTA ATA GAA GTA ACA AAC AAA GCT GAG AAA AAA GGT AAT GTA CAG GTA	5280
Val Ile Glu Val Thr Asn Lys Ala Glu Lys Lys Gly Asn Val Gln Val	
1745 1750 1755 1760	

**FIG. 2k**

ACA AAT AAA ACC GAG AAA ACA ACT AAA GTT GAT AAA AAT AAT AAA GTA 5328  
Thr Asn Lys Thr Glu Lys Thr Thr Lys Val Asp Lys Asn Asn Lys Val  
1765 1770 1775

CCG AAA AAA AGA AGA ACG CAA AAA TCA AAA TAA 5361  
Pro Lys Lys Arg Arg Thr Gln Lys Ser Lys \*  
1780 1785

***FIG. 21***

T ACA TTA ACT GAA AGT GTA GAT GAT AAT AAA AAT TTA GAA GAA GCC	46
Thr Leu Thr Glu Ser Val Asp Asp Asn Lys Asn Leu Glu Glu Ala	
1 5 10 15	
GAA GAT ATA AAG GAA AAT ATC TTA TTA AGT AAT ATA GAA GAA CCA AAA	94
Glu Asp Ile Lys Glu Asn Ile Leu Leu Ser Asn Ile Glu Glu Pro Lys	
20 25 30	
GAA AAT ATT ATT GAC AAT TTA TTA AAT AAT ATT GGA CAA AAT TCA GAA	142
Glu Asn Ile Ile Asp Asn Leu Leu Asn Asn Ile Gly Gln Asn Ser Glu	
35 40 45	
AAA CAA GAA AGT GTA TCA GAA AAT GTA CAA GTC AGT GAT GAA CTT TTT	190
Lys Gln Glu Ser Val Ser Glu Asn Val Gln Val Ser Asp Glu Leu Phe	
50 55 60	
AAT GAA TTA TTA AAT AGT GTA GAT GTT AAT GGA GAA GTA AAA GAA AAT	238
Asn Glu Leu Leu Asn Ser Val Asp Val Asn Gly Glu Val Lys Glu Asn	
65 70 75	
ATT TTG GAG GAA AGT CAA GTT AAT GAC GAT ATT TTT AAT AGT TTA GTA	286
Ile Leu Glu Glu Ser Gln Val Asn Asp Asp Ile Phe Asn Ser Leu Val	
80 85 90 95	
AAA AGT GTT CAA CAA GAA CAA CAA CAC AAT GTT GAA GAA AAA GTT GAA	334
Lys Ser Val Gln Gln Glu Gln Gln His Asn Val Glu Glu Lys Val Glu	
100 105 110	
GAA AGT GTA GAA GAA AAT GAC GAA GAA AGT GTA GAA GAA AAT GTA GAA	382
Glu Ser Val Glu Glu Asn Asp Glu Glu Ser Val Glu Glu Asn Val Glu	
115 120 125	
GAA AAT GTA GAA GAA AAT GAC GAC GGA AGT GTA GCC TCA AGT GTT GAA	430
Glu Asn Val Glu Glu Asn Asp Asp Gly Ser Val Ala Ser Ser Val Glu	
130 135 140	
GAA AGT ATA GCT TCA AGT GTT GAT GAA AGT ATA GAT TCA AGT ATT GAA	478
Glu Ser Ile Ala Ser Ser Val Asp Glu Ser Ile Asp Ser Ser Ile Glu	
145 150 155	

**FIG. 3a**

GAA AAT GTA GCT CCA ACT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA	526
Glu Asn Val Ala Pro Thr Val Glu Glu Ile Val Ala Pro Thr Val Glu	
160 165 170 175	
GAA ATT GTA GCT CCA AGT GTT GTA GAA AGT GTG GCT CCA AGT GTT GAA	574
Glu Ile Val Ala Pro Ser Val Val Glu Ser Val Ala Pro Ser Val Glu	
180 185 190	
GAA AGT GTA GCT CCA AGT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA	622
Glu Ser Val Ala Pro Ser Val Glu Glu Ser Val Ala Glu Asn Val Glu	
195 200 205	
GAA AGT GTA GCT GAA AAT GTT GAA GAA ATC GTA GCT CCA AGT GTT GAA	670
Glu Ser Val Ala Glu Asn Val Glu Glu Ile Val Ala Pro Ser Val Glu	
210 215 220	
GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA	718
Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu	
225 230 235	
GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA	766
Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu	
240 245 250 255	
GAA AGT GTA GCT GAA AAT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA	814
Glu Ser Val Ala Glu Asn Val Glu Glu Ile Val Ala Pro Thr Val Glu	
260 265 270	
GAA AGT GTA GCT CCA ACT GTT GAA GAA ATT GTA GCT CCA ACT GTT GAA	862
Glu Ser Val Ala Pro Thr Val Glu Glu Ile Val Ala Pro Thr Val Glu	
275 280 285	
GAA AGT GTA GCT CCA ACT GTT GAA GAA ATT GTA GTT CCA AGT GTT GAA	910
Glu Ser Val Ala Pro Thr Val Glu Glu Ile Val Val Pro Ser Val Glu	
290 295 300	
GAA AGT GTA GCT CCA AGT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA	958
Glu Ser Val Ala Pro Ser Val Glu Glu Ser Val Ala Glu Asn Val Glu	
305 310 315	

**FIG. 3b**

GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA 1006  
Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu  
320 325 330 335

GAA AGT GTA GCT GAA AAT GTT GAA GAA AGT GTA GCT GAA AAT GTT GAA 1054  
Glu Ser Val Ala Glu Asn Val Glu Glu Ser Val Ala Glu Asn Val Glu  
340 345 350

GAA ATC GTA GCT CCA AGT GTT GAA GAA ATC GTA GCT CCA ACT GTT GAA 1102  
Glu Ile Val Ala Pro Ser Val Glu Glu Ile Val Ala Pro Thr Val Glu  
355 360 365

GAA AGT GTT GCT GAA AAC GTT GCA ACA AAT TTA TCA GAC AAT CTT TTA 1150  
Glu Ser Val Ala Glu Asn Val Ala Thr Asn Leu Ser Asp Asn Leu Leu  
370 375 380

AGT AAT TTA TTA GGT GGT ATC GAA ACT GAG GAA ATA AAG GAC AGT ATA 1198  
Ser Asn Leu Leu Gly Gly Ile Glu Thr Glu Glu Ile Lys Asp Ser Ile  
385 390 395

TTA AAT GAG ATA GAA GAA GTA AAA GAA AAT GTA GTC ACC ACA ATA CTA 1246  
Leu Asn Glu Ile Glu Glu Val Lys Glu Asn Val Val Thr Thr Ile Leu  
400 405 410 415

GAA AAA GTA GAA GAA ACT ACA GCT GAA AGT GTA ACT ACT TTT AGT AAT 1294  
Glu Lys Val Glu Glu Thr Thr Ala Glu Ser Val Thr Thr Phe Ser Asn  
420 425 430

ATA TTA GAG GAG ATA CAA GAA AAT ACT ATT ACT AAT GAT ACT ATA GAG 1342  
Ile Leu Glu Glu Ile Gln Glu Asn Thr Ile Thr Asn Asp Thr Ile Glu  
435 440 445

GAA AAA TTA GAA GAA CTC CAC GAA AAT GTA TTA AGT GCC GCT TTA GAA 1390  
Glu Lys Leu Glu Glu Leu His Glu Asn Val Leu Ser Ala Ala Leu Glu  
450 455 460

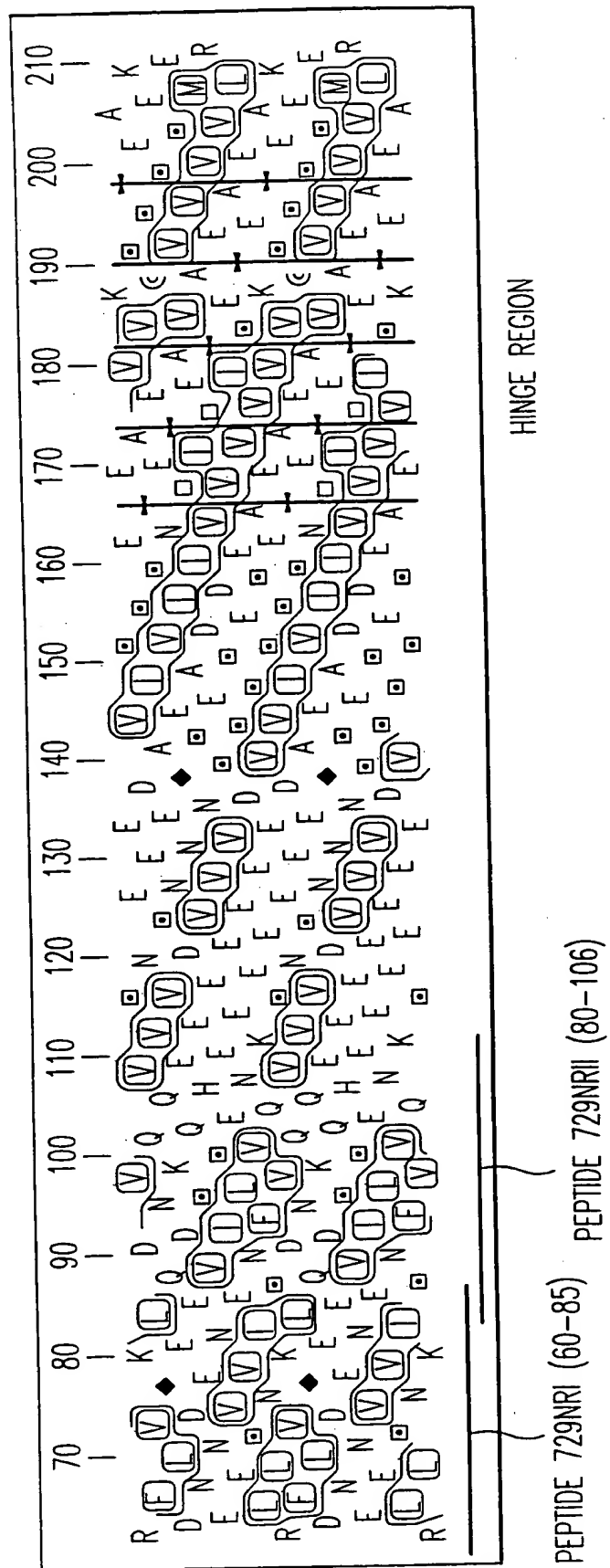
AAT ACC CAA AGT GAA GAG GAA AAG AAA GAA GTA ATA GAT GTA ATT GAA 1438  
Asn Thr Gln Ser Glu Glu Glu Lys Lys Glu Val Ile Asp Val Ile Glu  
465 470 475

**FIG. 3c**

GAA GTA AAA GAA GAG GTC GCT ACC ACT TTA ATA GAA ACT GTG GAA CAG	1486
Glu Val Lys Glu Glu Val Ala Thr Thr Leu Ile Glu Thr Val Glu Gln	
480	485 490 495
GCA GAA GAA GAG AGC GAA AGT ACA ATT ACG GAA ATA TTT GAA AAT TTA	1534
Ala Glu Glu Glu Ser Glu Ser Thr Ile Thr Glu Ile Phe Glu Asn Leu	
500	505 510
GAA GAA AAT GCA GTA GAA AGT AAT GAA AAA GTT GCA GAG AAT TTA GAG	1582
Glu Glu Asn Ala Val Glu Ser Asn Glu Lys Val Ala Glu Asn Leu Glu	
515	520 525
AAA TTA AAC GAA ACT GTA TTT AAT ACT GTA TTA GAT AAA GTA GAG GAA	1630
Lys Leu Asn Glu Thr Val Phe Asn Thr Val Leu Asp Lys Val Glu Glu	
530	535 540
ACA GTA GAA ATT AGC GGA GAA AGT TTA GAA AAC AAT GAA ATG GAT AAA	1678
Thr Val Glu Ile Ser Gly Glu Ser Leu Glu Asn Asn Glu Met Asp Lys	
545	550 555
GCA TTT TTT AGT GAA ATA TTT GAT AAT GTA AAA GGA ATA CAA GAA AAT	1726
Ala Phe Phe Ser Glu Ile Phe Asp Asn Val Lys Gly Ile Gln Glu Asn	
560	565 570 575
TTA TTA AGA GGT ATG TTT CGA AGT ATA GAA ACC AGT ATA GTA ATC CAA	1774
Leu Leu Thr Gly Met Phe Arg Ser Ile Glu Thr Ser Ile Val Ile Gln	
580	585 590
TCA GAA GAA AAG GTT GAT TTG AAT GAA AAT GTG GTT AGT TCG ATT TTA	1822
Ser Glu Glu Lys Val Asp Leu Asn Glu Asn Val Val Ser Ser Ile Leu	
595	600 605
GAT AAT ATA GAA AAT ATG AAA GAA GGT TTA TTA AAT AAA TTA GAA AAT	1870
Asp Asn Ile Glu Asn Met Lys Glu Gly Leu Leu Asn Lys Leu Glu Asn	
610	615 620
ATT TCA AGT ACT GAA GGC GAA	1891
Ile Ser Ser Thr Glu Gly Glu	
625	630

**FIG. 3d**







**FIG. 5**

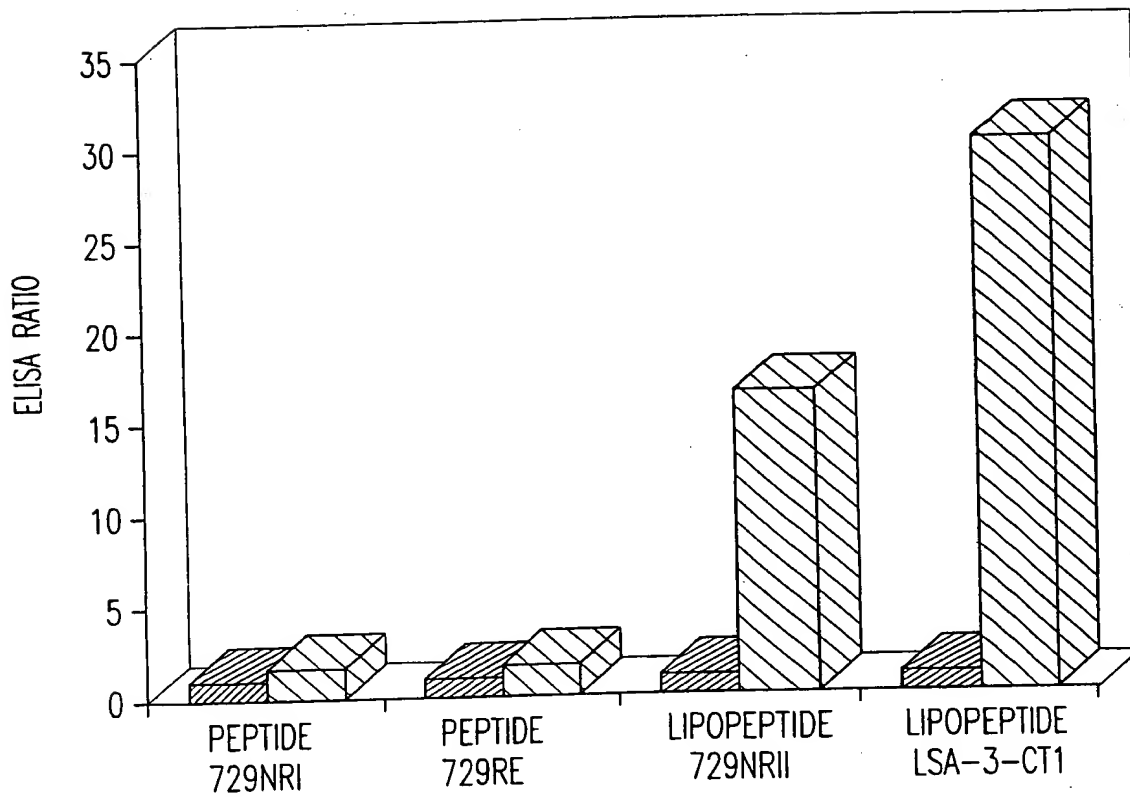
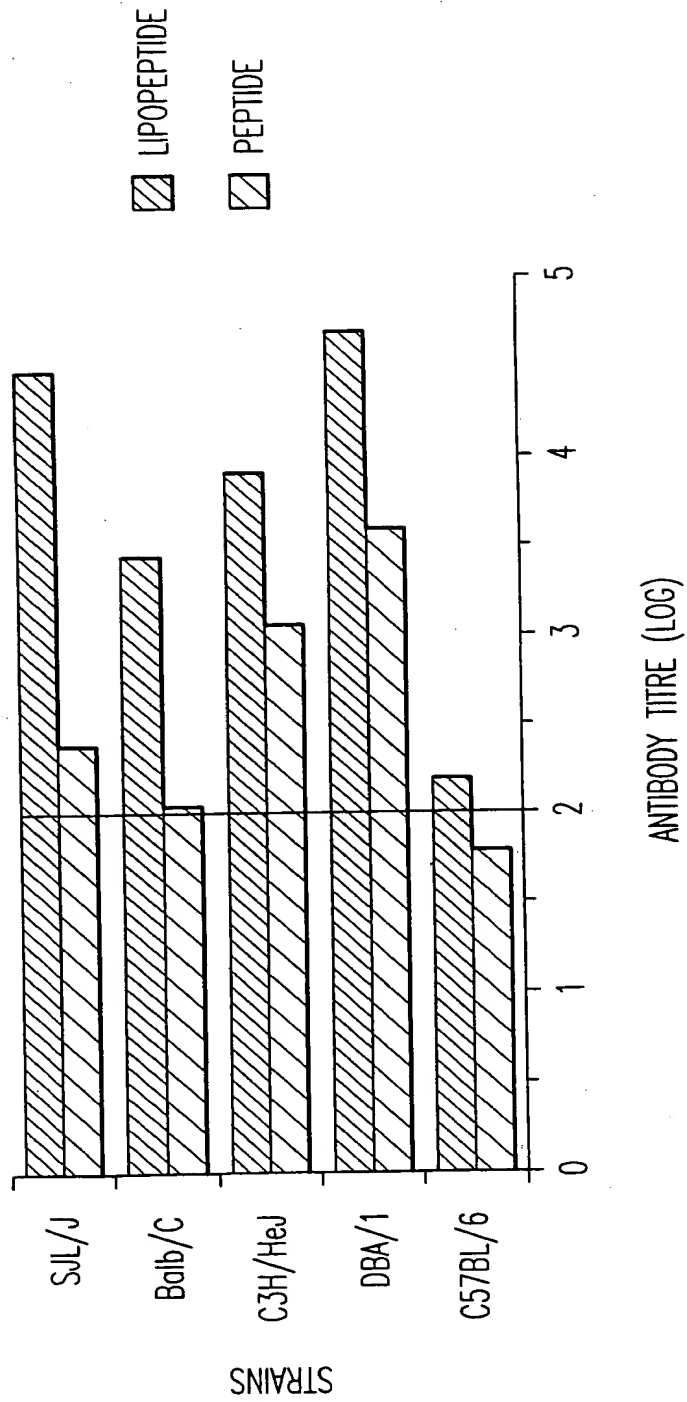
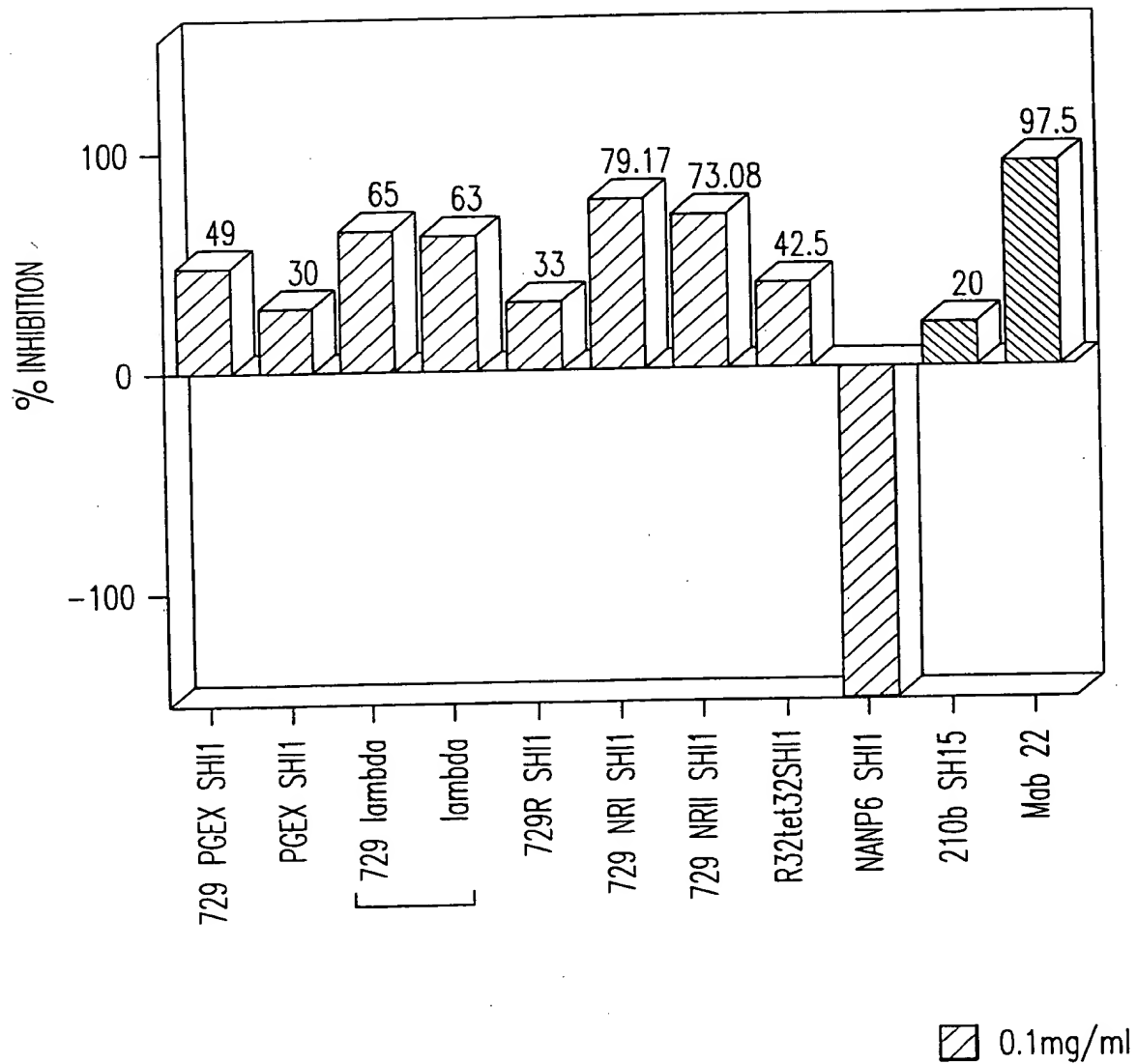


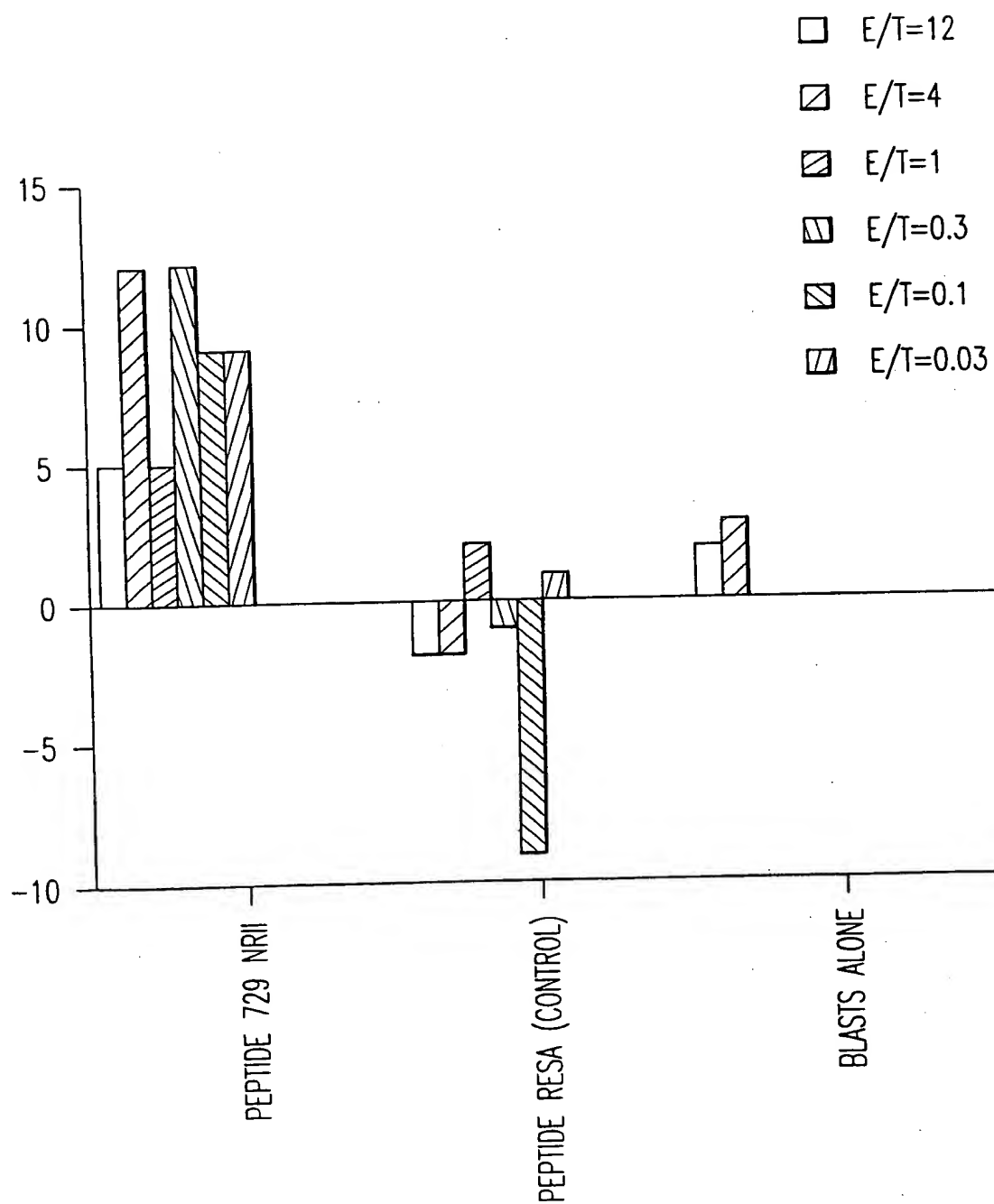
FIG. 6

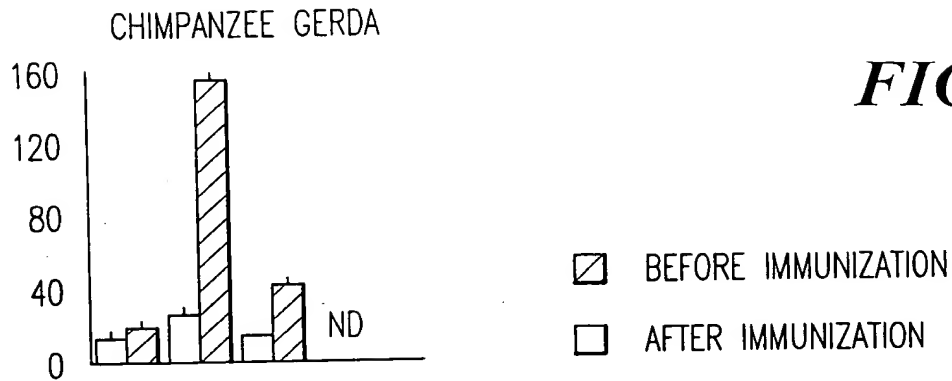


**FIG. 7**

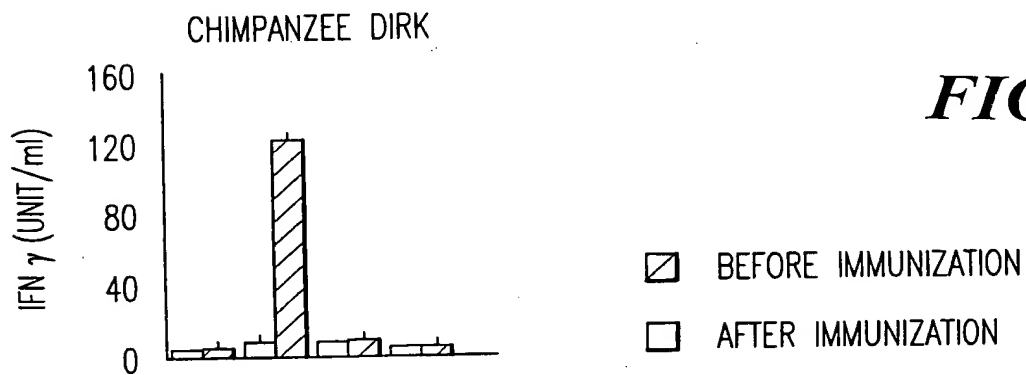


**FIG. 8**

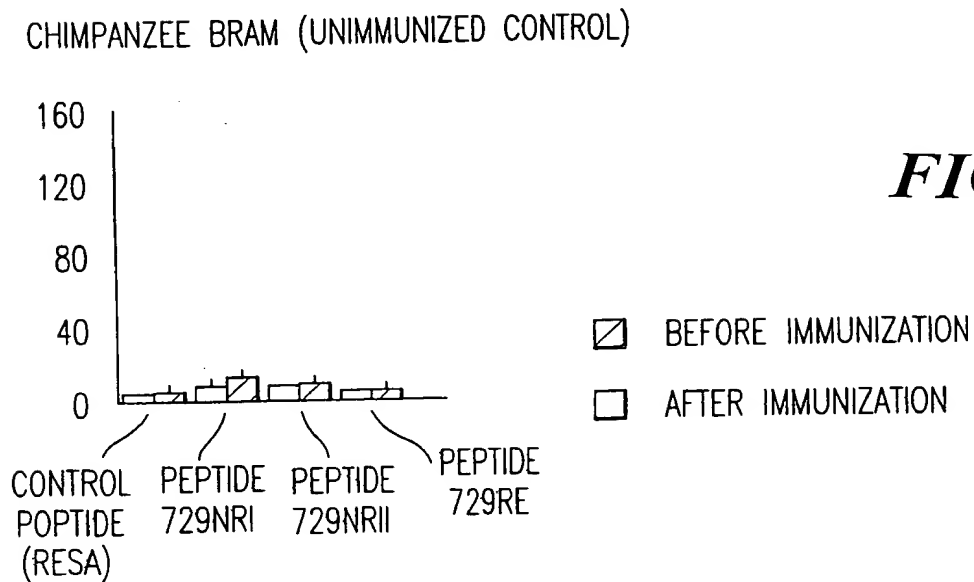




**FIG. 9a**

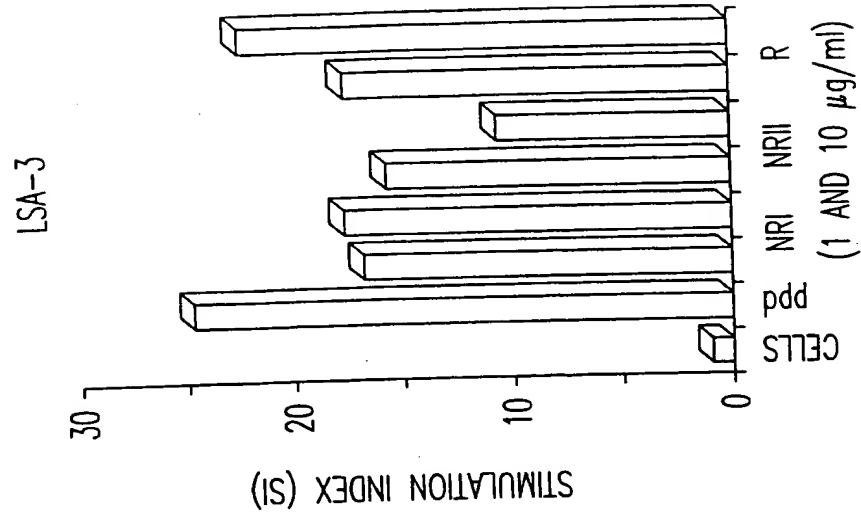


**FIG. 9b**



**FIG. 9c**

**FIG. 10b**



**FIG. 10a**

